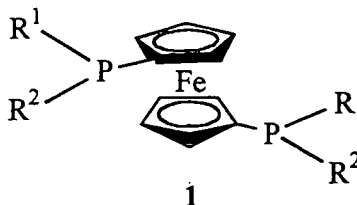


CLAIMS

1. A supported catalyst comprising a cationic rhodium(I) complex of the formula



wherein R^1 and R^2 are the same or different hydrocarbon groups of up to 30 C atoms, or R^1 and R^2 are linked to form a ring, and a heterogeneous support medium that provides anionic binding sites.

2. ~~The~~ A catalyst according to claim 1, wherein the support medium comprises a heteropolyacid anchoring agent.
3. ~~The~~ A catalyst according to 2, wherein the heteropolyacid is of the Keggin type.
4. ~~The~~ A catalyst according to claim 3, wherein the heteropolyacid is phosphotungstic acid, phosphomolybdic acid or silicotungstic acid.
5. ~~The~~ A catalyst according to claim 4, wherein the heteropolyacid is phosphotungstic acid.
6. ~~The~~ A catalyst according to ~~any preceding claim~~ ^{claim 1}, wherein the support medium comprises an oxide selected from alumina, silica, titania, lanthana, zeolites and clays.
7. ~~The~~ A catalyst according to claim 6, wherein the metal oxide is alumina.
8. ~~The~~ A catalyst according to ~~any preceding claim~~ ^{claim 1}, wherein the support medium is a cation exchange resin containing sulphonic acid groups $-SO_3^- X^+$, wherein X^+ is a proton or any other exchangeable cation.
9. ~~The~~ A catalyst according to claim 8, wherein the cation exchange resin is a tetrafluoroethylene-perfluoro(vinyl ether sulfonate) copolymer.
10. ~~The~~ A catalyst according to ~~any preceding claim~~ ^{claim 1}, wherein R^1 and R^2 are each an alkyl group.
11. ~~The~~ A catalyst according to claim 10, wherein $R^1 = R^2 = i\text{-Pr}$.
12. Use of a catalyst according to any preceding claim, in a process of hydrogenating an aldehyde to produce the corresponding primary alcohol.

Sub AL

The process

13. ~~Use~~ according to claim 12, wherein substrate conversion of at least 90% is effected, and wherein the aldehyde also contains at least one sulfide group that is retained in the product.

The process

14. ~~Use~~ according to claim 12 ~~or claim 13~~, wherein the process is carried out in a mixture of water and an alcohol.

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